PLUS Search Results for S/N 10689792, Searched February 21, 2006

The Patent Linguistics Utility System (PLUS) is a USPTO automated search system for U.S. Patents from 1971 to the present. PLUS is a query-by-example search system which produces a list of patents that are most closely related linguistically to the application searched. This search was prepared by the staff of the Scientific and Technical Information Center, SIRA.

Titles of Most Frequently Occurring Classifications of Patents Returned From A Search of 10689792 on February 21, 2006

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5 438/624
                       (2 OR, 3 XR)
                      438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS
            Class
            438/584
                             COATING WITH ELECTRICALLY OR THERMALLY
                                      CONDUCTIVE MATERIAL
            438/597
                              .To form ohmic contact to semiconductive
                                     material
                              .. Contacting multiple semiconductive regions
            438/618
                             (i.e., interconnects)
...Multiple metal levels, separated by
insulating layer (i.e., multiple level metallization)
....Separating insulating layer is laminate or
composite of plural insulating materials
            438/622
            438/624
     428/433
                       (0 \text{ OR}, 4 \text{ XR})
            Class
                      428 :
                              STOCK MATERIAL OR MISCELLANEOUS ARTICLES
            428/411.1
                             COMPOSITE (NONSTRUCTURAL LAMINATE)
            428/426
                             .Of quartz or glass
            428/432
                             .. Next to metal or compound thereof
            428/433
                             ...Alloy or free metal
                       (1 OR, 3 XR)
28 : STOCK MATERIAL OR MISCELLANEOUS ARTICLES
(1000 ARTICLES ARTICLES)
     428/461
            class
                      428 :
            428/411.1
                             COMPOSITE (NONSTRUCTURAL LAMINATE)
            428/457
                             .Of metal
            428/461
                              .. Next to addition polymer from unsaturated
                                 monomers
     438/637
                       (0 OR, 4 XR)
                      438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS
            Class
            438/584
                             COATING WITH ELECTRICALLY OR THERMALLY
                                      CONDUCTIVE MATERIAL
            438/597
                             .To form ohmic contact to semiconductive
                                     material
                              ..Contacting multiple semiconductive regions
            438/618
                                    (i.e., interconnects)
                              ...Multiple metal levels, separated by
            438/622
                             insulating layer (i.e., multiple level metallization)
....With formation of opening (i.e., viahole)
in insulative layer
            438/637
                       (1 OR, 2 XR)
                      257 : ACTIVE SOLID-STATE DEVICES
            Class
            257/734
                             COMBINED WITH ELECTRICAL CONTACT OR LEAD
            257/741
                             .Of specified material other than unalloyed
                                   aluminum
            257/750
257/758
                             ..Layered
                             ...Multiple metal levels on semiconductor,
                                 separated by insulating layer (e.g., multiple level metallization for integrated circuit)
     257/E21.162
                       (0 \text{ OR}, 3 \text{ XR})
                      257 :
            Class
                              ACTIVE SOLID-STATE DEVICES
            257/E21.001
                             PROCESSES OR APPARATUS ADAPTED FOR MANUFACTURE
                                           OR TREATMENT OF SEMICONDUCTOR OR SOLID-STATE
DEVICES OR OF
                                           PARTS THEREOF (EPO)
            257/E21.002
                             .Manufacture or treatment of semiconductor
                                               Page 1
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		10689792_CLSTITLES1.txt		
depletion	257/E21.04	device (EPO) Device having at least one potential-jump barrier or surface barrier, e.g., PN junction,		
without	257/E21.085	layer, carrier concentration layer (EPO)Device having semiconductor body comprising Group IV elements or Group III-V compounds with or		
WILHOUL	257/E21.158	<pre>impurities, e.g., doping materials (EPO)Manufacture of electrode on semiconductor body using process other than by epitaxial growth, diffusion of impurities, alloying of impurity</pre>		
materials, or				
(500)	257/E21.159	radiation bombardment (EPO)Deposition of conductive or insulating material for electrode conducting electric current		
(EPO)	257/E21.16	From a gas or vapor, e.g., condensation		
	257/E21.161 257/E21.162	(EPO)Of conductive layer (EPO)On semiconductor body comprising Group IV element (EPO)		
3 257/	E21.245 (0 Class 257 257/E21.001	: ACTIVE SOLID-STATE DEVICES		
DEVICES OR OF				
	257/E21.002			
	257/E21.04	device (EPO) Device having at least one potential-jump barrier or surface barrier, e.g., PN junction,		
depletion				
without	257/E21.085	layer, carrier concentration layer (EPO)Device having semiconductor body comprising Group IV elements or Group III-V compounds with or		
	257/E21.211	impurities, e.g., doping materials (EPO)Treatment of semiconductor body using process other than deposition of semiconductor		
material on a substrate, diffusion or alloying of impurity				
material,	or	radiation treatment (EPO)		
cutting	257/E21.214	To change their surface-physical characteristics or shape, e.g., etching, polishing,		
(EPO)	257/E21.24	(EPO)To form insulating layer thereon, e.g., for masking or by using photolithographic technique		
	257/E21.241 257/E21.243	Post-treatment (EPO)Planarization of insulating layer (EPO)		
	257/E21.244	Involving dielectric removal step		
	257/E21.245	(EPO)Removal by chemical etching, e.g., dry etching (EPO)		
3 257/1	E21.266 (0 Class 257	OR, 3 XR) : ACTIVE SOLID-STATE DEVICES Page 2		

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10689792_CLSTITLES1.txt
           257/E21.001
                           PROCESSES OR APPARATUS ADAPTED FOR MANUFACTURE
                                       OR TREATMENT OF SEMICONDUCTOR OR SOLID-STATE
DEVICES OR OF
                            PARTS THEREOF (EPO)
.Manufacture or treatment of semiconductor
           257/E21.002
                                      device (EPO)
           257/E21.04
                            ..Device having at least one potential-jump
                                     barrier or surface barrier, e.g., PN junction,
depletion
                                     layer, carrier concentration layer (EPO)
           257/E21.085
                            ...Device having semiconductor body comprising
                                    Group IV elements or Group III-V compounds with or
without
                           impurities, e.g., doping materials (EPO)
....Treatment of semiconductor body using
   process other than deposition of semiconductor
           257/E21.211
material on
                                  a substrate, diffusion or alloying of impurity
material, or
                                  radiation treatment (EPO)
           257/E21.214
                            .....To change their surface-physical
                                 characteristics or shape, e.g., etching, polishing,
cutting
                                 (EPO)
                                ..To form insulating layer thereon, e.g., for masking or by using photolithographic technique
           257/E21.24
(EPO)
                           .....Inorganic layer (EPO)
           257/E21.266
  3 257/E21.295
                     (0 \text{ OR}, 3 \text{ XR})
                            ACTIVE SOLID-STATE DEVICES
                           PROCESSES OR APPARATUS ADAPTED FOR MANUFACTURE OR TREATMENT OF SEMICONDUCTOR OR SOLID-STATE
           257/E21.001
DEVICES OR OF
                                       PARTS THEREOF (EPO)
           257/E21.002
                            .Manufacture or treatment of semiconductor
                                      device (EPO)
           257/E21.04
                            .. Device having at least one potential-jump
                                     barrier or surface barrier, e.g., PN junction,
depletion
                                     layer, carrier concentration layer (EPO)
           257/E21.085
                            ...Device having semiconductor body comprising
                                    Group IV elements or Group III-V compounds with or
without
                                    impurities, e.g., doping materials (EPO)
                            ....Treatment of semiconductor body using
           257/E21.211
                                  process other than deposition of semiconductor
material on
                                  a substrate, diffusion or alloying of impurity
material, or
                                  radiation treatment (EPO)
                           .....To change their surface-physical characteristics or shape, e.g., etching, polishing,
           257/E21.214
cutting
                                 (EPO)
           257/E21.294
                            .....Deposition/post-treatment of
                                noninsulating, e.g., conductive - or resistive - layers
on
                           insulating layers (EPO)
.....Deposition of layer comprising metal,
           257/E21.295
                               e.g., metal, alloys, metal compounds (EPO)
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10689792_CLSTITLES1.txt
     257/E21.58
                       (0 OR, 3 XR)
                      257 : ACTIVE SOLID-STATE DEVICES
            Class
                             ...For electrical parameters, e.g., resistance, deep-levels, CV, diffusions by
            257/E21.531
electrical means
                                        (EPO)
            257/E21.532
                              .Manufacture or treatment of devices
                                      consisting of plurality of solid-state components
formed in
                                      or on common substrate or of parts thereof;
manufacture of
                                      integrated circuit devices or of parts thereof (EPO)
            257/E21.536
                              .. Manufacture of specific parts of devices
                                      (EPO)
                              ...Interconnections, comprising conductors and dielectrics, for carrying current between separate components within device (EPO)
            257/E21.575
            257/E21.576
                              ....Characterized by formation and post
                              treatment of dielectrics, e.g., planarizing (EPO)
.....Planarizing dielectric (EPO)
            257/E21.58
                       (0 OR, 3 XR)
257 : ACTIVE SOLID-STATE DEVICES
operation of pormal operation
     257/E23.145
                      257
            Class
                              ...Liquid at normal operating temperature of
            257/E23.139
                              device (EPO)
Arrangements for conducting electric current
            257/E23.141
                                    within device in operation from one component to
another,
                                    interconnections, e.g., wires, lead frames (EPO)
            257/E23.142
                              .. Including external interconnections
                                   consisting of multilayer structure of conductive and insulating layers inseparably formed on semiconductor
body
            257/E23.145
                              ...Via connections in multilevel
                                 interconnection structure (EPO)
  3
     428/209
                       (0 \text{ OR}, 3 \text{ XR})
                      428 :
                              STOCK MATERIAL OR MISCELLANEOUS ARTICLES
            Class
            428/98
                              STRUCTURALLY DEFINED WEB OR SHEET (E.G.,
                                    OVERALL DIMENSION, ETC.)
                              .Discontinuous or differential coating, impregnation or bond (e.g., artwork, printing, retouched
            428/195.1
                                   photograph, etc.)
            428/209
                              .. Including metal layer
                       (1 OR, 2 XR)
     428/35.9
                      428 :
            Class
                              STOCK MATERIAL OR MISCELLANEOUS ARTICLES
            428/34.1
                             HOLLOW OR CONTAINER TYPE ARTICLE (E.G., TUBE,
                                     VASE, ETC.)
            428/35.7
                              .Polymer or resin containing (i.e., natural or
                                    synthetic)
                              ..Elemental metal containing (e.g., substrate, foil, film, coating, etc.)
...Three or more layers (continuous layer)
            428/35.8
            428/35.9
                       (0 \text{ OR}, 2 \text{ XR})
     117/108
            Class
                               SINGLE-CRYSTAL, ORIENTED-CRYSTAL, AND EPITAXY
                      117 :
                             GROWTH PROCESSES; NON-COATING APPARATUS THE FORMING FROM VAPOR OR GASEOUS STATE (E.G., VPE,
            117/84
                                   SUBLIMATION)
                              .Using an energy beam or field, a particle beam
            117/108
                                 or field, or a plasma (e.g., MBE)
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Page 4

2	117/940 (0 Class 117 117/937	OR, 2 XR) : SINGLE-CRYSTAL, ORIENTED-CRYSTAL, AND EPITAXY GROWTH PROCESSES; NON-COATING APPARATUS THEREFOR INORGANIC CONTAINING SINGLE-CRYSTAL (E.G.,
	117/940	COMPOUND, MIXTURE, COMPOSITE) {C30B 29/10} .Halide containing (e.g., fluorphlogopite, fluor-mica) {C30B 29/12}
2	118/308 (0 Class 118 118/300 118/308	OR, 2 XR) : COATING APPARATUS PROJECTION OR SPRAY TYPE .Applying solid particulate material
2	Class 118	OR, 2 XR) : COATING APPARATUS PROJECTION OR SPRAY TYPE .Moving projector
2	Class 118 118/58	OR, 1 XR) : COATING APPARATUS WITH HEAT EXCHANGE, DRYING, OR NON-COATING GAS OR VAPOR TREATMENT OF WORK
	118/59	.With solid heat exchange means contacting work
2	118/673 (0 Class 118 118/663	OR, 2 XR) : COATING APPARATUS CONTROL MEANS RESPONSIVE TO A RANDOMLY OCCURRING SENSED CONDITION .Responsive to attribute, absence or presence
	118/672 118/673	of work Running length work Edge of running length of web material sensed
2		OR, 2 XR) : COATING APPARATUS WITH HEAT EXCHANGE, DRYING, OR NON-COATING GAS OR VAPOR TREATMENT OF WORK
	118/69	.Cooling
2	148/33.4 (1 Class 148 148/33 148/33.4	: METAL TREATMENT
2	148/33.5 (0 Class 148 . 148/33 . 148/33.5	OR, 2 XR) : METAL TREATMENT BARRIER LAYER STOCK MATERIAL, P-N TYPE .Having at least three contiguous layers of semiconductive material
2	216/13 (1 Class 216 216/13	OR, 1 XR) : ETCHING A SUBSTRATE: PROCESSES FORMING OR TREATING ELECTRICAL CONDUCTOR ARTICLE (E.G., CIRCUIT, ETC.)
2	220/62.12 (2 Class 220 220/62.11	OR, 0 XR) : RECEPTACLES RECEPTACLE SIDE WALL MADE OF TWO OR MORE LAYERS OF MATERIAL PERMANENTLY ATTACHED TOGETHER Page 5

10689792_CLSTITLES1.txt 220/62.12 .Beverage receptacle (0 OR, 2 XR) 2 220/669 220: class RECEPTACLES 220/660 SIDEWALL STRUCTURE 220/669 .Contoured sidewall (e.g., curved, corrugated, ribbed, variable thickness, etc.) (1 OR, 1 XR) 2 228/121 228 : METAL FUSION BONDING class 228/101 **PROCESS** 228/121 .Bonding nonmetals with metallic filler (0 OR, 2 XR) 228 : METAL FUSION BONDING 2 228/122.1 Class 228/101 **PROCESS** 228/122.1 .Metal to nonmetal with separate metallic filler (0 OR, 2 XR) 228 : METAL FUSION BONDING 228/124.1 class 228/101 **PROCESS** .Metal to nonmetal with separate metallic filler 228/122.1 228/124.1 ..With treating 2 228/195 (1 OR, 1 XR)Class 228: METAL FUSION BONDING 228/101 **PROCESS** .Diffusion type 228/193 228/195 .. With incipient melting of bonding surface 2 257/750 (0 OR, 2 XR)257 : ACTIVE SOLID-STATE DEVICES Class 257/734 COMBINED WITH ELECTRICAL CONTACT OR LEAD
.Of specified material other than unalloyed 257/741 aluminum 257/750 ..Layered 257/751 (0 OR, 2 XR)257 : ACTIVE SOLID-STATE DEVICES Class 257/734 257/741 COMBINED WITH ELECTRICAL CONTACT OR LEAD .Of specified material other than unalloyed aluminum ..Layered 257/750 257/751 ...At least one layer forms a diffusion barrier 257/761 (0 OR, 2 XR)class 257 : ACTIVE SOLID-STATE DEVICES 257/734 257/741 COMBINED WITH ELECTRICAL CONTACT OR LEAD .Of specified material other than unalloyed aluminum 257/750 ..Layered 257/761 ... At least one layer containing vanadium, hafnium, niobium, zirconium, or tantalum (0 OR, 2 XR)
257 : ACTIVE SOLID-STATE DEVICES 257/769 Class 257/734 COMBINED WITH ELECTRICAL CONTACT OR LEAD .Of specified material other than unalloyed 257/741

aluminum

.. Refractory or platinum group metal or alloy

Page 6

257/768

or silicide thereof ...Platinum group metal or silicide thereof 257/769 (0 OR, 2 XR) 257 : ACTIVE SOLID-STATE DEVICES 2 257/E21.585 Class ...For electrical parameters, e.g., resistance, deep-levels, CV, diffusions by 257/E21.531 electrical means (EPO) .Manufacture or treatment of devices 257/E21.532 consisting of plurality of solid-state components formed in or on common substrate or of parts thereof; manufacture of integrated circuit devices or of parts thereof (EPO) .. Manufacture of specific parts of devices 257/E21.536 (EPO) 257/E21.575 ...Interconnections, comprising conductors and dielectrics, for carrying current between separate components within device (EPO)Characterized by formation and post treatment of dielectrics, e.g., planarizing (EPO)Filling of holes, grooves, vias or trenches with conductive material (EPO) 257/E21.576 257/E21.585 (0 OR, 2 XR)2 257/E21.59 257 : ACTIVE SOLID-STATE DEVICES class 257/E21.531 ... For electrical parameters, e.g., resistance, deep-levels, CV, diffusions by electrical means (EPO) 257/E21.532 .Manufacture or treatment of devices consisting of plurality of solid-state components formed in or on common substrate or of parts thereof; manufacture of integrated circuit devices or of parts thereof (EPO) 257/E21.536 .. Manufacture of specific parts of devices (EPO) 257/E21.575 ... Interconnections, comprising conductors and dielectrics, for carrying current between separate components within device (EPO) 257/E21.576Characterized by formation and post treatment of dielectrics, e.g., planarizing (EPO)Local interconnects; local pads (EPO) 257/E21.59 (0 OR, 2 XR) 257 : ACTIVE 257/E23.106 ACTIVE SOLID-STATE DEVICES ACTIVE SOLID-STATE DEVICES
..For integrated circuit devices, e.g., power
bus, number of leads (EPO)
.Arrangements for cooling, heating, ventilating
or temperature compensation; temperature-sensing
arrangements (EPO)
..Selection of materials, or shaping, to
facilitate cooling or heating, e.g., heat sinks (EPO)
...Laminates or multilayers, e.g., direct bond
copper ceramic substrates (EPO) 257/E23.079 257/E23.08 257/E23.101 257/E23.106 2 257/E23.147 (0 OR, 2 XR)257: ACTIVE SOLID-STATE DEVICES Class 257/E23.139 ...Liquid at normal operating temperature of device (EPO)
.Arrangements for conducting electric current
Page 7 257/E23.141

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10689792_CLSTITLES1.txt
                                   within device in operation from one component to
another,
                                   interconnections, e.g., wires, lead frames (EPO)
           257/E23.142
                            .. Including external interconnections
                                  consisting of multilayer structure of conductive and insulating layers inseparably formed on semiconductor
body
                                  (EPO)
           257/E23.146
                            ... with adaptable interconnections (EPO)
                            ....Comprising antifuses, i.e., connections having their state changed from nonconductive to
           257/E23.147
conductive
                                (EPO)
                     (0 OR, 2 XR)
257 : ACTIVE SOLID-STATE DEVICES
     257/E23.167
            Class
            257/E23.139
                            ...Liquid at normal operating temperature of
                                    device (EPO)
           257/E23.141
                            .Arrangements for conducting electric current
                                   within device in operation from one component to
another,
                                   interconnections, e.g., wires, lead frames (EPO)
           257/E23.142
                            ..Including external interconnections
                                  consisting of multilayer structure of conductive and
                                  insulating layers inseparably formed on semiconductor
body
                                  (EPO)
                            ... Characterized by materials (EPO)
           257/E23.154
           257/E23.167
                            ....Insulating materials (EPO)
                    (0 OR, 2 XR)
257 : ACTIVE SOLID-STATE DEVICES
  2 257/E29.162
           Class
                            ....Si compounds (e.g., SiC) (EPO)
.Electrodes (EPO)
...Of specified material (EPO)
...Electrodes for IGFET (EPO)
           257/E29.104
           257/E29.111
           257/E29.139
           257/E29.15
           257/E29.162
                            ....Insulating materials for IGFET (EPO)
                      (0 OR, 2 XR)
59: OPTICS: SYSTEMS
    359/586
                     359 :
           Class
           359/577
                            LIGHT INTERFERENCE
           359/580
                            .Produced by coating or lamina
           359/586
                            ..Layers having specified index of refraction
  2 427/422
                      (0 \text{ OR}, 2 \text{ XR})
           Class 427: COATING PROCESSES
           427/421.1
                            SPRAYING
           427/422
                            .Heated coating material
                      (0 \text{ OR}, 2 \text{ XR})
     427/424
                     427 : COATING PROCESSES
           Class
           427/421.1
427/424
                            SPRAYING
                            .Moving the base
                     (1 OR, 1 XR)
427 : COATING PROCESSES
     427/446
           427/446
                            SPRAY COATING UTILIZING FLAME OR PLASMA HEAT
                               (E.G., FLAME SPRAYING, ETC.)
                      (2 OR, 0 XR)
28 : STOCK MATERIAL OR MISCELLANEOUS ARTICLES
    428/210
                     428 :
           Class
           428/98
                            STRUCTURALLY DEFINED WEB OR SHEET (E.G.,
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10689792_CLSTITLES1.txt
                                OVERALL DIMENSION, ETC.)
                          .Discontinuous or differential coating,
         428/195.1
                               impregnation or bond (e.g., artwork, printing, retouched
                               photograph, etc.)
         428/210
                          ..Including ceramic, glass, porcelain or quartz
                              layer
                    (0 OR, 2 XR)
  428/213
         Class
                   428 :
                          STOCK MATERIAL OR MISCELLANEOUS ARTICLES
         428/98
                          STRUCTURALLY DEFINED WEB OR SHEET (E.G.,
                                OVERALL DIMENSION, ETC.)
                          .Including components having same physical characteristic in differing degree ..Thickness (relative or absolute)
         428/212
         428/213
                    (0 OR, 2 XR)
28 : STOCK MATERIAL OR MISCELLANEOUS ARTICLES
2
  428/214
         class
                   428 :
                          STRUCTURALLY DEFINED WEB OR SHEET (E.G.,
         428/98
                                 OVERALL DIMENSION, ETC.)
                          .Including components having same physical characteristic in differing degree
         428/212
         428/213
                          .. Thickness (relative or absolute)
         428/214
                          ...Of adhesive layers
                   (1 OR, 1 XR)
428 : STOCK MATERIAL OR MISCELLANEOUS ARTICLES
  428/215
         Class
                          STRUCTURALLY DEFINED WEB OR SHEET (E.G.,
         428/98
                                 OVERALL DIMENSION, ETC.)
         428/212
                          .Including components having same physical
                                characteristic in differing degree
         428/213
                          .. Thickness (relative or absolute)
         428/215
                          ... Absolute thicknesses specified
  428/457
                    (0 \text{ OR}, 2 \text{ XR})
                  428 : STOCK MATERIAL OR MISCELLANEOUS ARTICLES
         Class
         428/411.1
                          COMPOSITE (NONSTRUCTURAL LAMINATE)
         428/457
                          .Of metal
                    (0 OR, 2 XR)
28 : STOCK MATERIAL OR MISCELLANEOUS ARTICLES
2
   428/462
                  428 :
         Class
         428/411.1
                          COMPOSITE (NONSTRUCTURAL LAMINATE)
         428/457
                          .of metal
         428/461
                          ..Next to addition polymer from unsaturated
                              monomers
         428/462
                          ...Including polyene monomers (e.g., butadiene,
                             etc.)
2 428/623
                    (1 OR, 1 XR)
         Class
                   428 :
                          STOCK MATERIAL OR MISCELLANEOUS ARTICLES
         428/544
                          ALL METAL OR WITH ADJACENT METALS
         428/615
                          .Composite; i.e., plural, adjacent, spatially
                          distinct metal components (e.g., layers, joint, etc.)
..with additional, spatially distinct nonmetal
         428/621
                                component
         428/622
                          ... More than one such component
         428/623
                          ....Adjacent to each other
                    (1 OR, 1 XR)
28 : STOCK MATERIAL OR MISCELLANEOUS ARTICLES
  428/627
                   428 :
         Class
         428/544
                          ALL METAL OR WITH ADJACENT METALS
                          Composite; i.e., plural, adjacent, spatially distinct metal components (e.g., layers, joint, etc.)
..with additional, spatially distinct nonmetal
         428/615
         428/621
                                           Page 9
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component

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428/627
                         ... Boride, carbide or nitride component
                   (0 OR, 2 XR)
28 : STOCK MATERIAL OR MISCELLANEOUS ARTICLES
2 428/654
         class
                  428 :
         428/544
                         ALL METAL OR WITH ADJACENT METALS
                         .Composite; i.e., plural, adjacent, spatially distinct metal components (e.g., layers, joint, etc.)
         428/615
                         ..Al-base component
         428/650
         428/654
                         ...Next to Al-base component
                  (0 OR, 2 XR)
428 : STOCK MATERIAL OR MISCELLANEOUS ARTICLES
  428/901
         Class
         428/901
                         PRINTED CIRCUIT
  438/622
                   (1 OR, 1 XR)
         Class
                  438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS
         438/584
                         COATING WITH ELECTRICALLY OR THERMALLY
                                CONDUCTIVE MATERIAL
         438/597
                         .To form ohmic contact to semiconductive
                              material
                         .. Contacting multiple semiconductive regions
         438/618
                         (i.e., interconnects)
...Multiple metal levels, separated by
         438/622
                            insulating layer (i.e., multiple level metallization)
  438/675
                   (1 OR, 1 XR)
        Class
                  438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS
        438/584
                         COATING WITH ELECTRICALLY OR THERMALLY
                                CONDUCTIVE MATERIAL
        438/597
                         .To form ohmic contact to semiconductive
                              material
        438/674
                         ..Selective deposition of conductive layer
        438/675
                         ...Plug formation (i.e., in viahole)
                 (0 OR, 2 XR)
438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS
  438/699
        class
                        CHEMICAL ETCHING
.Combined with coating step
..Planarization by etching and coating
        438/689
        438/694
        438/697
        438/699
                         ...Plural coating steps
  438/763
                   (0 \text{ OR}, 2 \text{ XR})
                  438 :
                         SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS
        Class
        438/758
                         COATING OF SUBSTRATE CONTAINING SEMICONDUCTOR
                              REGION OR OF SEMICONDUCTOR SUBSTRATE
                         .Multiple layers
..Layers formed of diverse composition or by
        438/761
        438/763
                            diverse coating processes
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10689792_CLS1.txt Most Frequently Occurring Classifications of Patents Returned From A Search of 10689792 on February 21, 2006

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Original Classifications
2 220/62.12
2 428/210
2 438/624
Cross-Reference Classifications
     4 428/433
           438/637
     3
           257/E21.162
           257/E21.102
257/E21.245
257/E21.266
257/E21.295
257/E21.58
257/E23.145
428/209
    428/461
438/624
           438/624
117/108
117/940
118/308
118/323
118/673
118/69
148/33.5
220/669
228/122.1
           228/124.1
257/750
           257/751
257/758
257/761
257/769
257/E21.585
           257/E21.59
           257/E23.106
257/E23.147
           25//E23.14/
257/E23.167
257/E29.162
359/586
427/422
427/424
428/213
428/214
428/35.9
428/457
           428/457
           428/462
           428/654
428/901
438/699
438/763
Combined Classifications
           438/624
428/433
    4
           428/461
    4
           438/637
     3
           257/758
257/E21.162
           257/E21.245
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257/E21.266 257/E21.295 257/E21.58 257/E23.145 428/209 428/35.9 117/108 117/940 118/308 118/323 118/59 118/673 118/673 118/69 148/33.4 148/33.5 216/13 220/62.12 220/669 228/121 228/122.1 228/124.1 228/195 257/750 257/751 257/769 257/E21.59 257/E23.106 257/E23.147 257/E23.167 257/E23.167 257/E23.167 257/E23.144 427/446 428/210 428/213 428/214 428/215 428/457 428/462 428/654 428/654 428/654 428/654 428/654 438/622 438/675 438/699 438/763